consists mainly of large logs and stumps left after burning. The termite activity is not very noticeable.

The nearest wandoo forest is to the west, about 1½ miles west of Jarrahdale, along the Darling scarp.

—DON REID, Roleystone.

Remains of the Pig-footed Bandicoot in Nullarbor Caves.—Mrs D. C. Lowry recently collected samples of the bony remains occurring abundantly in many caves in the south-western Nullarbor region and presented this collection to the Western Australian Museum. It includes lower jaws, skull fragments and three fairly complete skulls of the Pig-footed Bandicoot *(Chaeropus ecaudatus)* representing at least 27 different individuals. Mullamullang, Old Homestead, Firestick, Horseshoe and two caves not so far named have yielded *Chaeropus*. The Museum has no specimens of this bandicoot in its collection of modern mammals, and the species is poorly represented in most other museum collections. Consequently, Mrs Lowry's sample provides valuable information on skull and jaw structure, tooth dimensions and other characteristics of the Pig-footed Bandicoot, as well as material evidence of its former presence in the south-eastern portion of Western Australia.

—D. MERRILEES, Westen Australian Museum.

Pollination of Kangaroo Paws.—In his paper on the pollination of the kangaroo paw *(Anigozanthos manglesii)* G. F. Mees *(W. Aust. Nat.*, 10, 1967: 149) describes the mechanism of bird pollination and supports earlier suggestions that the Spinebill *(Acanthorhynchus superciliosus)* is probably the most important pollen carrier, with significant help from the Silvereye *(Zosterops gouldi)*.

My first notes on the pollination of kangaroo paws were made in Kings Park in 1931 when Spinebills, Silvereyes and Red Wattlebirds *(Anthochaera carunculata)* were seen to visit the blooms and receive liberal sprinklings of pollen. Later observations have shown that the Brown Honeyeater *(Lichmera indistincta)* is also a pollinating agent and that the Spinebill may not be as important as originally suggested. In recent years Red Wattle-birds and Silvereyes would be the commonest visitors to metropolitan kangaroo paws and it is likely that the Little Wattle-bird *(A. chrysoptera)* and the Singing Honeyeater *(Meliphaga virescens)* are also involved.

It is probable that the principal bird pollinators vary with the district and that the results obtained from Kings Park and other suburban regions would differ from those obtained in less disturbed situations. Since 1928 the population of Perth has more than doubled and urbanisation with its consequent clearing has had a marked effect upon the bird fauna of the metropolitan area. Honeyeaters like the Spinebill, which have a specialised habitat, have declined in numbers, but more adaptable types like the Singing Honeyeater may be seen in every suburban garden. The Brown Honeyeater and the Red Wattle-bird are still reasonably common and the Silvereye has found ornamental shrubs and cultivated grapes and figs ample recompense for the destruction of the bush.

There is considerable variation in the length of individual kangaroo paw flowers and this means that birds will be dusted with pollen on different portions of the dorsal surface. In the case of the Silvereye small flowers will dust the bird in the middle of the back while large blooms will drop the yellow dust on

the base of the tail. In the case of the Wattle-bird the dusted areas usually vary from the nape of the neck to the mid back. There is one further variation with the Wattle-bird and perhaps other large honeyeaters. The weight of the Wattle-bird is often sufficient to bear the flower stalk right to the ground and in this situation the probing for nectar is made at varying angles and so the normal pattern of pollen dusting may be upset.

The way in which the Red Wattle-bird has accommodated itself to its changing environment is exemplified by an incident in the Kings Park botanic gardens on Bird Day, October 1965. While 250 children were being addressed on nature conservation and the importance of birds in the cross pollination of certain native plants, a Red Wattle-bird flew down in front of the gathering and worked methodically through a large clump of kangaroo paws oblivious to the exclamations of the audience.

—C. F. H. JENKINS, South Perth.

Gums Used by Aborigines.—The information provided in recent numbers of the *Western Australian Naturalist* (9, 1964: 76; 10, 1967: 117) on the manufacture of spinifex gum by Aborigines has prompted me to report the following, as told to me by Harold Councillor, an Aboriginal.

The coastal natives around Geraldton used gum from the blackboy tree *(Xanthorrhoea)*, in the same fashion as the inland people used gum from the spinifex *(Triodia)*. However, the people between the coast and the spinifex country did not have a ready supply of gum. They did have a substitute, however, which, while not highly regarded, was nevertheless used. This was the gum from the biro bush *(Eremophila fraseri)*, a low bush with dark green leaves covered with a slightly sticky gum. The leaves are placed on a flat rock and another rock placed on the leaves. As the leaves are pressed more are placed on the pile and the rock replaced. Eventually the gum exudes on to the base rock and is collected and melted together.

Blackboy gum was probably the main item of trade between the Geraldton people and those inland. Spears were the main item used as exchange by the inland people, the best spearwood coming from a tree called by the Aborigines "noodinga." This is reputed to grow in a gully three miles south of Jingemarra Station homestead, Yalgoo.

—STAN GRATTE, Wonthella, Geraldton.

The South-eastern Range Limits of the Western Silvereye.—It is rather strange that earlier observers have failed to make any records of the occurrence of the Western Silvereye *(Zosterops gouldi)* along the far south-east coast of Western Australia. In their earlier editions of the *Birds of Western Australia* (1948, 1951) D. L. Serventy and H. M. Whittell were indefinite in fixing the south-eastern limits of the distribution of the species, mentioning only Norseman as their furthest east locality. In their third edition (1962) they extended the eastern limit to Newman's Rocks, and in their fourth (1967) to Eucla.

It will be useful to add some observations of my own in this general area. In January 1966 I saw a flock of about 60 silvereyes in the coastal sand dune scrub 23 miles south of Mundrabilla homestead—these were the green-backed western form *(gouldi)* and a specimen was collected. Mr. I. C. Carnaby informs me that he saw silvereyes in mallee *(Eucalyptus oleosa)* woodland 40 miles west of Eucla in September 1965. As this type of vegetation extends in a narrow coastal belt some distance across the border into South Australia it is likely that the Western Sil-